

**INTERIM LAND ACQUISITION PRIORITY SYSTEM
U.S. FISH AND WILDLIFE SERVICE**

ECOSYSTEM CONSERVATION COMPONENT

Project Name: _____ **Date:** _____

USFWS Ecosystem: _____ **Region:** _____

BACKGROUND

The Ecosystem Conservation Component may score a cumulative maximum of 200 points. The 200 point limit exists for other LAPS components (e.g., Bird Conservation, Endangered and Threatened Species, and Fisheries and Aquatic Resources). The proposed criteria were developed in order to provide a more quantitative assessment of the Ecosystem Conservation Component by including additional information relevant to the ranking process. This component is an effort to improve opportunities to effectively conserve and protect endangered and threatened ecosystems, and large, intact habitats, as a means of promoting and perpetuating the Service's trust resources. Your responses regarding "the project" should be based on the entire area within the approved acquisition boundary.

COMPONENT CRITERIA

Factor A - Significance of Protection (50 Points)

This section measures an acquisition's contribution to conserving national and global biodiversity using such factors as the uniqueness, distribution and abundance of communities contained in the acquisition as well as threats to those communities. The project will be evaluated at the landscape level and consider ecological communities within that landscape. National ranks will be used in place of global ranks for plant communities that are disjunct or peripheral in the United States, even if the plant community has a broader global distribution.

Identify the ecological communities that are present and which are or could be sustainable within the project. The identified communities should be of sufficient size to be sustainable with or without management treatment. Note: Do not assume restoration.

After entering the community type in the Significance of Protection Table (Table 1) below, enter the community global or national rank. A list of global and national ranks for ecological communities has been developed by The Nature Conservancy in cooperation with the Natural Heritage Network, Idaho Cooperative Fish and Wildlife Research Unit, and the U.S. Fish and Wildlife Service. The list of these communities and their ranks is available in The Nature Conservancy's National Vegetation Classification System—it is also on the Internet at <http://www.consci.tnc.org/library/pubs/class/index.html>. Descriptions of the communities,

including their geographic range, are available in Rare Plant Communities of the Conterminous United States which will be posted on the Service Intranet. The presence of G1 and G2 communities should be based on occurrences documented in the data bases of the State programs of the Natural Heritage Network. Where such rare communities are thought to occur on a site but are not documented, their presence on the site should be verified by a Heritage or other qualified community ecologist. Contact information for community ecologists in the Nature Conservancy's regional offices or their Natural Heritage Network can be found on their website at <http://www.heritage.tnc.org/>.

<u>Rank</u>		<u>Score</u>
G1 =	Critically imperiled globally (5 or fewer occurrences)	= 50
G2 =	Imperiled globally (6 to 20 occurrences)	= 25
G3 =	Either rare and local through their range or found locally in a restricted range (21 to 100 occurrences)	= 10
G4 =	Apparently secure (101-1,000 occurrences)	= 5
G5 =	Demonstrably secure (> 1,000 occurrences)	= 0

Alternative lists of community types and ranks may be suggested, with supporting documentation, to the WO LAPS Coordinator (and may be confirmed by the National LAPS Team).

Using the global or national rank, enter the appropriate community score in the following table:

<u>Community Type</u>	<u>Global or National Rank</u>	<u>Community Score</u>
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____

Total the scores for each community type to identify the Significance of Protection Score (not to exceed 50 points).

Factor B - Ecosystem Decline (30 Points)

This factor measures the extent to which a project protects native diversity at community, ecosystem, and landscape levels. Your response should be based on the entire area within the approved acquisition boundary.

Appendix A of Noss et al. (1995) provides estimated declines of many ecosystems with emphasis on the United States. Noss et al. identified 30 critically endangered, 58 endangered and more than 38 threatened ecosystems. Decline includes area loss and degradation. Appendix B of the same publication (Attachment I) lists "Critically Endangered, Endangered and Threatened

Ecosystems of the United States.” Sources other than Noss et al. may also be used, if they are thought to provide a more accurate assessment of the decline of any particular ecosystem.

Locate the project on Bailey’s map (Bailey et al., 1994) of the “Ecological Units of the United States” to identify the Subsection number. Locate the Subsection number in the corresponding “Map Unit Tables: Ecological Units of the United States” (reference by region) to determine the existing or potential (that which may have naturally existed) vegetation for the Subsection where the project is located. Sources other than Bailey’s may also be used, if they are thought to provide an accurate representation of historical plant communities. Using the “Potential Natural Vegetation” column in conjunction with the Critically Endangered, Endangered, and Threatened Ecosystems (Attachment I), list the ecosystems which will be protected or restored as a part of the project.

Alternative lists of ecosystems and corresponding categories (Critically Endangered, Endangered, Threatened) may be suggested , with supporting documentation, to the WO LAPS Coordinator (and may be confirmed by the National LAPS Team).

List the Critically Endangered ecosystems within the project with greater than 98 percent decline: (30 points per ecosystem represented in project area. See Attachment I at the end of this component, or identify other source)

1. _____
2. _____
3. _____

List the Endangered ecosystems within the project with 85 to 98 percent decline: (25 points per ecosystem represented in project area. See list at end, or identify other source.)

1. _____
2. _____
3. _____

List the Threatened ecosystems within the project with greater than 70 to 84 percent decline: (20 points per ecosystem represented in project area. See list at end, or identify other source.)

1. _____
2. _____
3. _____

Factor C - Landscape conservation (95 points)

Factor B gives points for the investment strategy of preserving large, intact habitats within the landscape. Landscape-level conservation develops achievable alternatives that provide long-term sustainability for the intact landscape and evaluates ecosystem protection on a landscape level where protection of relatively intact habitats are valued over fragmented habitats. There are two elements for scoring points for landscape conservation: first is the size of the Service project, and the second is the overall landscape effort (possibly involving multiple partners) that the project may contribute to.

1. Size of Project (25 points). The greater the area of the Service Project within a landscape effort for conservation, the more points the project should receive. Use the following table of project acreage to determine points.

2. Size of Landscape Effort (70 points). The greater the area of overall landscape protection (may include multiple partners outside of the Service), the more points the Service project should receive. Use the following acreage of the total landscape effort to determine project points.

<u>Project Acreage</u>	<u>Score</u>
0 - 9,999	0
10,000 - 19,999	1
20,000 - 24,999	4
25,000 - 29,999	6
30,000 - 34,999	9
35,000 - 39,999	12
40,000 - 44,999	16
45,000 - 49,999	20
≥ 50,000	25

<u>Landscape Effort Acreage</u>	<u>Score</u>
0 - 99,999	0
100,000 - 199,999	1
200,000 - 299,999	3
300,000 - 399,999	6
400,000 - 449,999	11
450,000 - 499,999	14
500,000 - 549,999	17
550,000 - 599,999	21
600,000 - 649,999	25
650,000 - 699,999	30
700,000 - 749,999	34
750,000 - 799,000	39
800,000 - 849,999	45
850,000 - 899,999	51
900,000 - 949,999	57
950,000 - 999,999	63
≥ 1,000,000	70

Factor D - Contributions to National Plans and Designations (Maximum of 25 points)

Have designations of national significance been assigned to a portion of a project, or is it part of a national plan? Is the project within 50 miles of a designated nationally important site *that has similar habitat* to that found within the project boundary? Check those below that pertain to the project and total, not to exceed 25 points.

Alternative lists of Designations and Plans may be suggested , with supporting documentation, to the WO LAPS Coordinator (and may be confirmed by the National LAPS Team).

Designation	Part of Plan or Designation	Within 50 miles of Important Site
Congressionally designated Wilderness	_____	_____
Ramsar Sites (Wetlands of International Importance)	_____	_____
Western Hemisphere Shorebird Reserve Network site	_____	_____
North American Waterfowl Management Plan Joint Venture Focus Area	_____	_____
Wild and Scenic Rivers	_____	_____
National Seashore	_____	_____
National Estuarine Reserves	_____	_____
National Marine Sanctuaries	_____	_____

Plan	Part of Plan or Designation	Within 50 miles of Important Site
Regional Wetlands Concept Plan	_____	_____
Habitat Conservation Plan	_____	_____
Landscape Plan	_____	_____
Biosphere	_____	_____

TOTAL # Checked	_____	_____
Multiply by points	x 7 pts each	x 2 pts each

TOTAL	_____ + _____ =
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INTERIM LAND ACQUISITION PRIORITY SYSTEM
Ecosystem Conservation Component
Data Input Form

Project Name: _____

Date: ____________

State: _____

Region: _____

USFWS Ecosystem: _____

Bailey's Subsection : _____

This project is predominantly a:

____ **Restoration Project (estimated) ____%**

List Habitat(s) Type(s): _____

____ **Habitat Protection Project (estimated) ____%**

List Habitat(s) Type(s) : _____

Factor A - Significance of Protection (50 Points maximum)

Note: Do not assume restoration.

List sources if other than The Nature Conservancy's National Vegetation Classification System:

Community Type	Global or National Rank	Community Score
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____
6. _____	_____	_____
7. _____	_____	_____
8. _____	_____	_____
9. _____	_____	_____
10. _____	_____	_____

TOTAL FACTOR A SCORE: _____

Factor B - Ecosystem Decline (30 Points maximum)

1. Critically Endangered - Ecosystems within the project with greater than 98 percent decline that will be protected or restored within the project. (30 points per ecosystem. See list in Attachment I)

List sources if other than Noss: _____

Name	% of project area existing	% of project area restorable
1) _____	_____	_____
2) _____	_____	_____
3) _____	_____	_____

2. Endangered - Ecosystems within the project with 85 to 98 percent decline that will be protected or restored within the project. (25 points per ecosystem. See list in Attachment I)

List sources if other than Noss: _____

Name	% of project area existing	% of project area restorable
1) _____	_____	_____
2) _____	_____	_____
3) _____	_____	_____

3. Threatened - Ecosystems within the project with greater than 70 to 84 percent decline that will be protected or restored within the project. (20 points per ecosystem. See list in Attachment I)

List sources if other than Noss: _____

Name	% of project area existing	% of project area restorable
1) _____	_____	_____
2) _____	_____	_____
3) _____	_____	_____

TOTAL FACTOR B SCORE = _____

Factor C - Landscape conservation (95 Points)

1. Size of Project. Circle the appropriate project acreage and corresponding score:

<u>Project Acreage</u>	<u>Score</u>
0 - 9,999	0
10,000 - 19,999	1
20,000 - 24,999	4
25,000 - 29,999	6
30,000 - 34,999	9
35,000 - 39,999	12
40,000 - 44,999	16
45,000 - 49,999	20
≥ 50,000	25

2. Size of Landscape Effort. Circle appropriate landscape effort acreage (including all partners) and corresponding score:

<u>Landscape Effort Acreage</u>	<u>Score</u>
0 - 99,999	0
100,000 - 199,999	1
200,000 - 299,999	3
300,000 - 399,999	6
400,000 - 449,999	11
450,000 - 499,999	14
500,000 - 549,999	17
550,000 - 599,999	21
600,000 - 649,999	25
650,000 - 699,999	30
700,000 - 749,999	34
750,000 - 799,000	39
800,000 - 849,999	45
850,000 - 899,999	51
900,000 - 949,999	57
950,000 - 999,999	63
≥ 1,000,000	70

TOTAL FACTOR C SCORE = Project acreage score + Landscape Effort acreage score =

Factor D - Contributions to National Plans and Designations (Maximum of 25 points)

Check those below that pertain to the project and total, not to exceed 25 points.

<u>Designations</u>	Part of Plan or Designation	Within 50 miles of Important Site
Congressionally designated Wilderness	_____	_____
Ramsar Sites (Wetlands of International Importance)	_____	_____
Western Hemisphere Shorebird Reserve Network site	_____	_____
North American Waterfowl Management Plan Joint Venture Focus Area	_____	_____
Wild and Scenic Rivers	_____	_____
National Seashore	_____	_____
National Estuarine Reserves	_____	_____
National Marine Sanctuaries	_____	_____
Others: _____	_____	_____
_____	_____	_____

<u>Plans</u>	Part of Plan or Designation	Within 50 miles of Important Site
Regional Wetlands Concept Plan	_____	_____
Habitat Conservation Plan	_____	_____
Landscape Plan	_____	_____
Biosphere	_____	_____
Others: _____	_____	_____
_____	_____	_____

TOTAL # Checked	_____	_____
Multiply by points	x 7 pts each	x 2 pts each
SUBTOTAL	_____	_____

TOTAL FACTOR D SCORE = Part of P/D Subtotal + Near P/D Subtotal = _____
(not to exceed 25 points)

Total Possible Points = 200**Total Points: Factor: A + B + C + D = _____**

ATTACHMENT I

Critically Endangered, Endangered and Threatened Ecosystems of the United States.

Critically endangered, endangered, and threatened ecosystems of the United States. Decline refers to destruction, conversion to other land uses, or significant degradation of ecological structure, function, or composition since European settlement.

Critically Endangered (>98% decline) Ecosystems

Old-growth and other virgin stands in the eastern deciduous forest biome.

Spruce-fir (*Picea rubens*-*Abies fraseri*) forest in the southern Appalachians.

Red pine (*Pinus resinosa*) and white pine (*Pinus strobus*) forests (mature and old-growth) in Michigan.

Longleaf pine (*Pinus palustris*) forests and savannas in the southeastern coastal plain.

Slash pine (*Pinus elliottii*) rockland habitat in South Florida.

Loblolly pine-shortleaf pine (*Pinus taeda*-*Pinus echinata*) hardwood forests in the West Gulf Coastal Plain.

Arundinaria gigantea canebrakes in the Southeast.

Tallgrass prairie east of the Missouri River and on mesic sites across range.

Bluegrass savanna-woodland and prairies in Kentucky.

Black Belt prairies in Alabama and Mississippi and in the Jackson Prairie in Mississippi.

Ungrazed dry prairie in Florida.

Oak (*Quercus* spp.) savanna in the Midwest.

Wet and mesic coastal prairies in Louisiana.

Lakeplain wet prairie in Michigan.

Hempstead Plains grasslands on Long Island, New York.

Lake sand beaches in Vermont.

Serpentine barrens, maritime heathland, and pitch pine (*Pinus rigida*)-heath barrens in New York.

Prairies (all types) and oak savannas in the Willamette Valley and in the foothills of the Coast Range, Oregon.

Palouse prairie (Idaho, Oregon, and Washington and in similar communities in Montana).

Native grasslands (all types) in California.

Alkali sink scrub in southern California.

Coastal strand in southern California.

Ungrazed sagebrush steppe in the Intermountain West.

Basin big sagebrush (*Artemisia tridentata*) in the Snake River Plain of Idaho.

Atlantic white-cedar (*Chamaecyparis thyoides*) stands in the Great Dismal Swamp of Virginia and in North Carolina and possibly across the entire range.

Streams in the Mississippi Alluvial Plain.

Endangered (85-98% decline) Ecosystems

Old-growth and other virgin forests in regions and in states other than in those already listed, except in Alaska.

Sedge (*Carex* spp. and others) meadows in Wisconsin

Mesic limestone forest and barrier island beaches in Maryland.

Coastal plain Atlantic white-cedar swamp, maritime oak-holly (*Quercus* spp.-*Ilex* spp.) forest, maritime redcedar (*Juniperus virginiana*) forest, marl fen, marl pond shore, and oak openings in New York.

Coastal heathland in southern New England and on Long Island.

Pine-oak-heath sandplain woods and lake sand beach -in Vermont.

Floodplain forests in New Hampshire.

Red spruce (*Picea rubens*) forests in the central Appalachians (West Virginia).

Upland hardwoods in the Coastal Plain of Tennessee.

Lowland forest in southeastern Missouri.

High-quality oak-hickory (*Quercus* spp.-*Carya* spp.) forest on the Cumberland Plateau and on the Highland Rim of Tennessee.

Limestone redcedar (*Juniperus virginianus*) glades in Tennessee.

Wet longleaf pine savanna and eastern upland longleaf pine forest in Louisiana.

Calcareous prairie, Fleming glade, shortleaf pine/oak-hickory forest, mixed hardwood-loblolly pine forest, eastern xeric sandhill woodland, and stream terrace sandy woodland/savanna in Louisiana.

Slash pine (*Pinus elliottii*) forests in southwestern Florida.

Red pine and white pine forests in Minnesota.

Coastal redwood (*Sequoia sempervirens*) forests in California.

Old-growth ponderosa pine (*Pinus ponderosa*) forests in the northern Rocky Mountains, Intermountain West, and eastside Cascades Mountains.

Riparian forests in California, Arizona, and New Mexico.

Coastal sage scrub (especially maritime) and coastal mixed chaparral in southern California.

Dry forest on main islands of Hawaii.

All types of native habitats in the lower delta of the Rio Grande River, Texas.

Tallgrass prairie (all types combined).

Native shrub and grassland steppe in Oregon and in Washington.

Low elevation grasslands in Montana.

Gulf Coast pitcher plant (*Sarracenia* spp.) bogs.

Pocosins (evergreen shrub bogs) and ultramafic soligenous wetlands in Virginia.

Mountain bogs (southern Appalachian bogs and swamp forest-bog complex) in

Tennessee and in North Carolina.

Upland wetlands on the Highland Rim of Tennessee.

Saline wetlands in eastern Nebraska.

Wetlands (all types combined) in south-central California, Illinois, Indiana, Iowa, Missouri, Nebraska, and Ohio.

Marshes in the Carson-Truckee area of western Nevada.

Low-elevation wetlands in Idaho.

Woody hardwood draws, glacial pothole ponds, and peatlands in Montana.

Vernal pools in the Central Valley and in southern California.

Marshes in the Coos Bay area of Oregon.

Freshwater marsh and coastal salt marsh in Southern California.

Seasonal wetlands of the San Francisco Bay, California.

Large streams and rivers in all major regions.

Aquatic mussel (Unionidae) beds in Tennessee.

Submersed aquatic vegetation in the Chesapeake Bay, in Maryland, and in Virginia.

Mangrove swamps and salt marsh along the Indian River lagoon, Florida.

Seagrass meadows in Galveston Bay, Texas.

Threatened (70-84% decline) Ecosystems

Nationwide riparian forests (other than in already listed regions), including southern bottomland hardwood forests.

Xeric habitats (scrub, scrubby flatwoods, sandhills) on the Lake Wales Ridge, Florida.

Tropical hardwood hammocks on the central Florida keys.

Northern hardwood forest, aspen (*Populus* spp.) parkland, and jack pine (*Pinus banksiana*) forests in Minnesota.

Saline prairie, western upland longleaf pine forest, live oak-pine-magnolia (*Quercus virginiana* *Pinus* spp.-*Magnolia* spp.) forest, western xeric sandhill woodland, slash pine-pond baldcypress-hardwood (*Pinus elliottii*-*Taxodium ascendens*) forest, wet and mesic spruce-pine (*P. glabra*)-hardwood flatwoods, wet mixed hardwood-loblolly pine (*Pinus taeda*) flatwoods, and flatwoods ponds in Louisiana.

Alvar grassland, calcareous pavement barrens, dwarf pine ridges, mountain spruce-fir forest, inland Atlantic whitecedar swamp, freshwater tidal swamp, inland salt marsh, patterned peatland, perched bog, pitch pine-blueberry (*Pinus rigida*-*Vaccinium* spp.) peat swamp, coastal plain poor fens, rich graminoid fen, rich sloping fen, and riverside ice meadow in New York.

Maritime-like forests in the Clearwater Basin of Idaho.
Woodland and chaparral on Santa Catalina Island.

Southern tamarack (*Larix laricina*) swamp in Michigan.
Wetlands (all kinds) in Arkansas, Connecticut, Kentucky, and Maryland.
Marshes in the Puget Sound region, Washington.

Cienegas (marshes) in Arizona.

Coastal wetlands in California.